

Distribution: known only from open mesquite woods, Linn, Hidalgo County, Texas (type locality).

Department of Botany, UNIVERSITY OF MICHIGAN.

EXPLANATION OF PLATE 327

FIG. 1. *ECHINOCEREUS PAPILLOSUS* A. Lke. (Mich. Bot. Gard. No. 15255, left); *ECHINOCEREUS ANGUSTICEPS* Clover (Mich. Bot. Gard. No. 15261, right) showing differences in size and habit.

FIG. 2. *ECHINOCEREUS ANGUSTICEPS* Clover (Mich. Bot. Gard. No. 15261).

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NOTES ON THE FLORA OF WORCESTER COUNTY,  
MASSACHUSETTS

DAVID POTTER AND NORMAN P. WOODWARD

In the list of "The Herbaria of New England" compiled in 1901 by the late Mary A. Day<sup>1</sup> no herbaria are listed from Worcester County. During the years which have elapsed since the above article appeared much active botanical work has been accomplished in and about Worcester, which has resulted in the appearance of at least four small herbaria. The smallest of these is that of the late Joseph Jackson, author of "The Flora of Worcester County."<sup>2</sup> After the death of Mr. Jackson his herbarium became the property of Miss Ethel L. Rider, a teacher in the North High School of Worcester, Massachusetts, and is there housed. The senior author has recently examined this collection and found it to contain 713 named species and varieties, with practically no duplication. In addition there are about 30 sheets of unnamed specimens. These plants, collected between the years 1878 and 1885, are in white paper folders and for the most part unmounted. 517 of the above noted 713 plants were collected in Millbury, Massachusetts. Mr. Jackson states in the preface to his first edition that he at first planned to write only a flora of Millbury, but finally expanded it to include the whole county. This first edition contained 810 species and well marked varieties. The second edition lists 1098, while the third increased the count to 1240. A supplement to this work, by Norman P. Woodward<sup>3</sup> was published in 1927 adding some 421 plants new to the county, thus making the total number of species reported 1661.

<sup>1</sup> Day, Mary A. The Herbaria of New England. *RHODORA*, 3: 67-71, 206-208, 219-222, 240-244, 255-262, 281-283, 285-288.

<sup>2</sup> Jackson, Joseph. Flora of Worcester County, Massachusetts. Worcester Natural History Society, 1883. 2d edition, 1894, 3d edition, 1909.

<sup>3</sup> Additions to Flora of Worcester County. Edited by Norman P. Woodward. Worcester Natural History Society, 1927.



The Herbarium of the Worcester Natural History Society contains approximately 6280 sheets, of which 4307 are from Worcester County. This count includes only the Pteridophyta and the Spermatophyta, although the Society has a very creditable collection of both the Bryophyta and certain of the Thallophyta. Unfortunately, the herbarium is poorly housed from a standpoint of accessibility, with very limited space for work, and kept in an unheated room.

The Biology Department of Clark University has an herbarium of approximately 10,000 sheets. This collection is not restricted to the flora of Worcester County but is primarily a teaching collection. In addition to the New England material it contains 280 sheets from the Galapagos Islands, collected by Dr. Bauer in 1891, Dr. Potter's collection<sup>1</sup> of about 600 numbers from the region of James Bay (the southern portion of Hudson Bay) and about 700 sheets from eastern Ontario and western Quebec, in the general region from Lake Temiskaming to Lake Abitibi, collected by Mr. W. B. Brierly and Mr. W. H. Hodge.

Three years ago under the leadership of the senior author the Hadwen Botanical Club was formed. It was named in honor of Obadiah B. Hadwen, a resident of Worcester, who, at his death, bequeathed to the University his estate, the same to be used as an arboretum. The main purpose of the Club is to stimulate interest concerning plants and bring together those botanically minded people in and about Worcester who for some time have been more or less "lone-star rangers." The first problem of the Club is to make a very thorough survey of the flora of the county, and although only just past its second collecting season, the herbarium of the club now numbers approximately 3000 sheets.

Due to the Club's activity and that of those connected with the Natural History Society a number of plants new to the county have been found, and it is thought advisable to publish at this time a list of this new material. It is a pleasure to record thanks to all the people who have contributed to this work. Special thanks are due to Mrs. R. B. Dodge for her unfailing interest and careful work, to Mrs. D. L. Salter for her contributions to the families Gramineae and Cyperaceae, to Mr. Cyrus Darling for his work on the Ferns, and to Mr. Earl W. Bemis for his many valuable contributions.

The plants enumerated in the following list are arranged by families

<sup>1</sup> Potter, David., Plants collected in the Southern Region of James Bay. *RHODORA*, 36: 274-284. 1934.



according to the system used in Gray's Manual, 7th edition. In each case the species listed is accompanied by the name of the person who first discovered and reported the plant as growing within the county, the township where found, the date of finding and, where an herbarium sheet exists, its place of deposition. For this purpose the following key is used.

- C. THE HERBARIA OF CLARK UNIVERSITY AND THE HADWEN BOTANICAL CLUB.
- W. THE HERBARIUM OF THE WORCESTER SOCIETY OF NATURAL HISTORY.
- S. THE PRIVATE HERBARIUM OF MRS. D. L. SALTER, WORCESTER, MASS.
- G. THE GRAY HERBARIUM (INCLUDING THE HERBARIUM OF THE NEW ENGLAND BOTANICAL CLUB) AT HARVARD UNIVERSITY.

In a few cases no herbarium sheet exists, but it is the hope of the authors that these omissions will soon be rectified. It is thought best to report these plants even though the pressed specimen is lacking, since in each instance the person reporting the same is thoroughly reliable.

POLYPODIUM VIRGINIANUM L., forma ELONGATUM (Jewell) Fernald. C. Leicester, July 15, 1933. *Cyrus Darling*.

POLYSTICHUM ACROSTICHOIDES (Michx.) Schott, forma INCISUM (Gray) Gilbert. C. Holden, July 31, 1933. *Cyrus Darling*.

SORGHUM HALEPENSE (L.) Pers. S. Hubbardston, Sept. 15, 1930. D. L. Salter.

PASPALUM PUBESCENS Muhl. (See Weatherby, RH. 30: 128). C. Westminster, Aug. 15, 1930. C. M. Litch. Also D. L. Salter, Worcester, Sept. 15, 1930.

PANICUM LINEARIFOLIUM Scribn., var. WERNERI (Scribn.) Fernald. C. Fitchburg, June 7, 1932. RH. 36: 65. C. M. Litch.

PANICUM LANUGINOSUM Elliott, var. FASCICULATUM (Torr.) Fernald. C. Fitchburg, June 15, 1932. C. M. Litch.

PANICUM OLIGOSANTHES Schultes, var. SCRIBNERIANUM (Nash) Fernald. C. Fitchburg, June 7, 1932. RH. 36: 80. C. M. Litch.

PANICUM TUCKERMANI Fernald. RH. 21: 110. G. Shrewsbury, Nov. 27, 1929. *Earl W. Bemis*.

ANTHOXANTHUM ODORATUM L., var. VILLOSUM Loisel. G. Paxton, June 10, 1933. "Peculiar in the sessile spikes." *Earl W. Bemis*.

SPOROBOLUS NEGLECTUS Nash. S. Worcester, Oct. 9, 1932. D. L. Salter.

AGROSTIS ALBA L., var. VULGARIS (With.) Thurb. S. C. Worcester, July 15, 1929. D. L. Salter.

DESCHAMPSIA CAESPITOSA (L.) Beauv., var. PARVIFLORA (Thuill.) Richter. W. Tatnuck, Sept. 25, 1931. *Clarence W. Kinney*. Found in garden soil. A second record for Mass.

AVENA SATIVA L. July 9, 1927. *Norman P. Woodward*. Common



about dumps and new home sites. No herbarium sheet of the above specimen. This plant has been collected and herbarium sheets are now in the collection of the Hadwen Botanical Club from Worcester, Auburn, Millbury and Princeton.

ERAGROSTIS PECTINACEA (Michx.) Steud. S. C. Holden, Aug. 5, 1928. *D. L. Salter.*

ERAGROSTIS PEREGINA Wiegand. S. Worcester, Sept. 15, 1930. *D. L. Salter.*

POA NEMORALIS L. S. C. Worcester, June 2, 1930. *D. L. Salter.*

POA TRIVIALIS L. S. Upton, June 20, 1931. *D. L. Salter.*

POA ALSODES Gray. S. Worcester, May, 1930. *D. L. Salter.*

GLYCERIA GRANDIS Wats. S. C. W. Worcester, July 20, 1928. *D. L. Salter.*

GLYCERIA BOREALIS (Nash) Batchelder. G. Boylston, July 30, 1928. *Earl W. Bemis.* Several plants in shallow water.

FESTUCA RUBRA L. S. Leicester, June 21, 1930. *D. L. Salter.*

FESTUCA OVINA L., var. HISPIDULA Hack. S. C. Worcester, June 20, 1928. *D. L. Salter.*

FESTUCA OVINA L., var. CAPILLATA (Lam.) Hack. S. Worcester, June 20, 1930. *D. L. Salter.*

BROMUS HORDEACEUS L. S. Worcester, June 20, 1932. *D. L. Salter.*

BROMUS COMMUTATUS Schrad. S. C. Worcester, Aug. 1, 1929. *D. L. Salter.*

BROMUS CILIATUS L., var. INTONSUS Fernald. G. Shrewsbury, Oct. 21, 1932. *Earl W. Bemis.* The common New England form. *Rh. 32: 70.*

BROMUS PURGANS L. S. Hubbardston, August, 1929. *D. L. Salter.*

BROMUS INERMIS Leyss. S. C. Worcester, July 4, 1930. *D. L. Salter.*

LOLIUM MULTIFLORUM Lam. C. W. Worcester, June 10, 1929. *D. L. Salter.*

TRITICUM SATIVUM Lam. Worcester, June 22, 1929. *Norman P. Woodward.* No herbarium sheet, frequent about the city on dumps.

CYPERUS RIVULARIS Kunth. G. Boylston, Aug. 17, 1930. *Earl W. Bemis.*

CYPERUS ERYTHORRHIZOS Muhl. G. Boylston, Aug. 21, 1930. *Earl W. Bemis.*

CYPERUS STRIGOSUS L., var. CAPITATUS Boeckl. G. Boylston, Aug. 21, 1930. *Earl W. Bemis.*

CYPERUS STRIGOSUS L., var. COMPOSITUS Britton. G. Boylston, Aug. 21, 1930. *Earl W. Bemis.*

FIMBRISTYLIS FRANKII Steud. G. Shrewsbury, Nov. 27, 1929. *Earl W. Bemis.*

SCIRPUS SYLVATICUS L., var. BISSELLII Fernald. G. Bolton. *F. F. Forbes.* Also in Worcester by *Earl W. Bemis*, Aug. 21, 1933.



RH. 36: 7. *C. A. Weatherby* writes as follows: "Scirpus sylvaticus v. Bissellii . . . is always rare, but the sort of variation which I should expect to turn up now and then wherever the typical form is found."

CAREX SCOPARIA Schkuhr, var. MONILIFORMIS (Tuckerm.) Kuenth. G. Shrewsbury, June 25, 1933. *Earl W. Bemis*.

CAREX SCOPARIA Schkuhr, var. CONDENSE Fernald. S. Worcester, June 21, 1930. *D. L. Salter*.

CAREX PROJECTA Mackenzie (*C. tribuloides* Wahlenb., var. *reducta* Bailey). G. Shrewsbury, June 20, 1933. *Earl W. Bemis*.

CAREX SICCATA Dewey. S. Oakham, May 30, 1932. *D. L. Salter*. Also by *Earl W. Bemis* in Boylston, June 18, 1933.

CAREX MERRITT-FERNALDII Mackenzie (*C. festucacea* of Gray's Manual, 7th ed.) G. Paxton, June 27, 1933. *Earl W. Bemis*.

CAREX BREVIOR (Dewey) Mackenzie (*C. festucacea* Schkuhr, var. *brevior* (Dewey) Fernald). S. Grafton, May 23, 1930. *D. L. Salter*. Also by *Earl W. Bemis* in Paxton, June 10, 1933.

CAREX FOENEA Willd., var. PERPLEXA Bailey. S. Worcester, June 14, 1930. *D. L. Salter*.

CAREX LEPORINA L. S. Worcester, June 18, 1931. *D. L. Salter*. Also by *Earl W. Bemis* in Paxton, June 28, 1933.

CAREX ANGUSTIOR Mackenzie (*C. stellulata* Good., var. *angustata* Carey). C. Ashburnham, June 22, 1931. *C. M. Litch*. Also by *R. H. Lombard* in Spencer, June 2, 1933, and by *Earl W. Bemis* in Paxton, June 10, 1933.

CAREX SEORSA E. C. Howe. G. Paxton, June 10, 1933. "Not common anywhere." *Earl W. Bemis*. See RH. 36: 8.

CAREX CANESCENS L., var. SUBLOLIACEA Laestad. S. Holden, May 22, 1930. *D. L. Salter*. Also by *Earl W. Bemis* in Boylston, June 20, 1933.

CAREX TRISPERMA Wahlenb., var. BILLINGSII Knight. G. Boylston, Oct. 17, 1932. *Earl W. Bemis*.

CAREX ANNECTENS Bickn., (*C. setacea* Dewey, var. *ambigua* (Barratt) Fernald). G. Paxton, July 4, 1933. *Earl W. Bemis*.

CAREX CRINITA Lam., var. GYNANDRA (Schwein.) Schwein. & Torr. C. Fitchburg, June 26, 1932. *C. M. Litch*.

CAREX STRICTA Lam., var. DECORA Bailey. S. Worcester, June 15, 1930. *D. L. Salter*.

CAREX PENNSYLVANICA Lam., var. DISTANS Peck (*C. penn.*, var. *lucorum* (Willd.) Fernald). S. Sutton, May 11, 1930. *D. L. Salter*. Also by *Earl W. Bemis* in Worcester, July 20, 1933.

CAREX CARYOPHYLLEA Lat. S. Worcester, June 10, 1930. *D. L. Salter*.

CAREX PAUPERCULA Michx., var. IRRIGUA (Wahlenb.) Fernald. S. Worcester, June 11, 1932. *D. L. Salter*.

CAREX DEBILIS Michx., var. RUDGEI Bailey. S. Worcester, May 24, 1930. *D. L. Salter*.

CAREX LUPULINA Muhl., var. PEDUNCULATA Dewey. G. Boylston, Oct. 10, 1932. *Earl W. Bemis*.



CAREX VESICARIA L. S. Auburn, June 8, 1933. *D. L. Salter.*

CAREX ROSTRATA Stokes. G. Boylston, Oct. 14, 1932. *Earl W. Bemis.*

CAREX ROSTRATA Stokes, var. AMBIGENS Fernald. S. Princeton, Sept. 5, 1932. *D. L. Salter.*

JUNCUS MACER S. F. Gray, var. ANTHELATUS (Wiegand) Fernald. (*J. tenuis* Willd., var. *anthelatus* Wiegand). G. Worcester, Aug. 6, 1933. *Earl W. Bemis.*

JUNCUS MACER S. F. Gray, var. WILLIAMSII Fernald. (*J. tenuis* Willd., var. *Williamsii* Fernald). G. Worcester, Aug. 6, 1933. *Earl W. Bemis.*

JUNCUS SECUNDUS Beauv. G. East Douglas, Aug. 19, 1933. *Earl W. Bemis.*

JUNCUS ARTICULATUS L. G. Paxton, Sept. 20, 1927. *Earl W. Bemis.*

HOSTA CAERULEA (Andr.) Tratt. West Boylston, July 28, 1916. No herbarium sheet, a frequent escape. *Norman P. Woodward.*

CONVALLARIA MAJALIS L. Boylston, May 30, 1928. *Earl W. Bemis.* No herbarium sheet of this plant from this location.

TRILLIUM ERECTUM L., forma ALBIFLORUM R. Hoff. W. Tatnuck, May 15, 1932. *Clarence W. Kinney.* Also by *Mrs. R. B. Dodge* in Petersham. See *Proc. Bost Soc. Nat. Hist.* 36: 244.

NARCISSUS PSEUDO-NARCISSUS L. Worcester, May 3, 1933. *Norman P. Woodward.* No herbarium sheet, an escape, in open woods.

NARCISSUS POETICUS L. W. Worcester, May 24, 1933. *Norman P. Woodward.* An escape, Peat Meadow (3 plants).

IRIS VARIEGATA L. Worcester, June 4, 1923. *Norman P. Woodward.* No herbarium sheet, an escape, now established near Chadwick Square.

CYRIPEDIUM ACAULE Ait., forma ALBIFLORUM Rand & Redfield. Worcester (Rattlesnake Hill), June 14, 1920. *Norman P. Woodward.* No herbarium sheet, rare.

POGONIA OPHIOGLOSSOIDES (L.) Ker., forma ALBIFLORA Rand & Redfield. Oxford, July 7, 1928. *Earl W. Bemis.* No herbarium sheet.

SPIRANTHES ROMANZOFFIANA Cham. C. Leicester, July 24, 1932. *Cyrus Darling.*

JUGLANS NIGRA L. Worcester, June 2, 1922. No herbarium sheet. Occasionally about the city. *Mrs. R. B. Dodge.*

ALNUS CRISPA (Ait.) Pursh, var. MOLLIS Fernald. C. W. Harvard (Still River), Oct. 8, 1932. *RH.* 15: 44 for citation. *Mrs. Frank E. Lowe.*

RUMEX PERSICARIOIDES L. W. Worcester (Peat Meadow), Aug. 28, 1928. "A second record for New England." *Norman P. Woodward.*

RUMEX ACETOSA L. W. Oakham, July 1, 1928. *Mrs. R. B. Dodge.*



POLYGONUM AVICULARE L., var. LITTORALE (Link) Koch. W. Worcester, Sept. 9, 1931. Sandy beach, Lake Quinsigamond. *Norman P. Woodward*.

CHENOPODIUM LEPTOPHYLLUM Nutt. W. Worcester, Aug. 10, 1930. Spontaneous in garden. Rare. *Mrs. John W. Kemp*.

CERASTIUM TOMENTOSUM L. Worcester (Peat Meadow), June 8, 1930. No herbarium sheet. An escape in waste land. *Mrs. R. B. Dodge*.

GYPSOPHILA PANICULATA L. W. Worcester, July 25, 1928. An escape in waste land. *Norman P. Woodward*.

TUNICA SAXIFRAGA (L.) Scop. W. Worcester (Waconah Road), July 30, 1932. *Mrs. R. B. Dodge*.

DIANTHUS CARYOPHYLLUS L. Worcester (Peat Meadow), June 29, 1929. No herbarium sheet. A garden escape. *Mrs. R. B. Dodge*.

AGUILEGIA CANADENSIS L., forma PHIPPENII (J. Robinson) R. Hoffman. G. Boylston, May 1, 1925. *Earl W. Bemis*. Also *N. P. Woodward* in Worcester, May 27, 1933.

CHEIRANTHUS ALLIONI Hort. W. Worcester (Peat Meadow), June 29, 1929. A horticultural variety, probably a hybrid. *Mrs. R. B. Dodge*.

ARABIS DRUMMONDI Gray. W. Berlin, May 15, 1933. *Mrs. R. B. Dodge*.

PHILADELPHUS CORONARIUS L. Worcester, June 21, 1928. No herbarium sheet. Escaped and established. *Norman P. Woodward*.

SPIRAEA JAPONICA L. f. Worcester (Peat Meadow), Sept. 5, 1927. No herbarium sheet. An escape. *Norman P. Woodward*.

SPIRAEA PRUNIFOLIA Sieb. & Zucc. Shrewsbury, June 3, 1925. No herbarium sheet. Along the lake shore. *Norman P. Woodward*.

PYRUS PRUNIFOLIA Willd. W. Worcester (Chadwick Sq.) Sept. 1, 1926. *Norman P. Woodward*.

PYRUS JAPONICA Thunb. Sutton, June 6, 1928. No herbarium sheet. An escape from garden. (Conn. Flora, 1910, p. 224. *Cydonia japonica* (Thunb.) Pers.). *Mrs. John W. Kemp*.

AMELANCHIER STOLONIFERA Wieg. W. Worcester, May 16, 1933. See RH. 14: 144. *Mrs. Frank E. Lowe*.

RHODOTYPOS KERRIOIDES Sieb. & Zucc. Worcester (June St.) May 21, 1932. No herbarium sheet. An escape. *Norman P. Woodward*.

SANGUISORBA ANNUA Nutt. W. Worcester (Peat Meadow), Sept. 22, 1930. In grading near building. A fugitive from the west. *Mrs. R. B. Dodge*.

ROSA SETIGERA Michx. W. Worcester (Peat Meadow) July 21, 1929. *Mrs. R. B. Dodge*. Also *N. P. Woodward* in Worcester, July 13, 1930.

ROSA SUFFULTA Greene. C. Worcester, Aug. 25, 1932. *Cyrus Darling*.

PRUNUS CERASUS L. Leicester, May 19, 1932. No herbarium sheet. Rare. *Mrs. R. B. Dodge*.



VICIA VILLOSA Roth. W. Harvard (sandy pasture), June 8, 1933. *Mrs. R. B. Dodge and Mrs. Frank E. Lowe.*

PHASEOLUS MULTIFLORUS Willd. Worcester, Aug. 24, 1928. No herbarium sheet. An escape on dump. *Mrs. R. B. Dodge.*

GERANIUM PRATENSE L. W. Tatnuck, May 21, 1932. Spont. in garden. *Clarence W. Kinney.* Seen in Sturbridge by *Mrs. R. B. Dodge*, June 8, 1933.

ACALYPHA GRACILENS Gray. W. Paxton, Aug. 29, 1926. *Earl W. Bemis.* Also *George Pride* in Worcester, Sept. 2, 1928.

EUPHORBIA MARGINATA Pursh. W. Worcester, Aug. 2, 1928. *Norman P. Woodward.*

EVONYMUS EUROPAEUS L. W. Worcester, June 4, 1930. An established escape. *Mrs. R. B. Dodge.*

ACER PSEUDO-PLATANUS L. W. Worcester, June 20, 1930. Occasionally spontaneous about the city. *Norman P. Woodward.*

ACER PLATANOIDES L. W. Worcester, May 27, 1933. Dried-up brook bed. Spontaneous about the city. *Norman P. Woodward.*

IMPATIENS BIFLORA Walt., forma IMMACULATA Weatherby. Worcester, Sept. 4, 1916. No herbarium sheet. Water hole, Lake Park. (Add. to Conn. Flora, 1930, p. 63 for citation). *Norman P. Woodward.*

MALVA MOSCHATA L., var. ALBA Hort. W. Worcester (Peat Meadow), Aug. 4, 1927. An escape. *Norman P. Woodward.*

MALVA ALCEA L. W. Worcester (Peat Meadow), July 13, 1930. A rare escape. *Mrs. R. B. Dodge.*

VIOLA STRIATA Ait. W. Tatnuck, May 13, 1929. *Clarence W. Kinney.* Also *Mrs. R. B. Dodge* in Fiskdale.

VIOLA ARVENSIS Murr. W. Worcester, May 15, 1932. *Mrs. R. B. Dodge.*

VIOLA RAFINESQUII Greene. W. Worcester, May 28, 1930. *Norman P. Woodward.*

ERYNGIUM AMETHYSTINUM L. W. Worcester, July 11, 1931. Escaped in grassland. *Norman P. Woodward.*

LYSIMACHIA PUNCTATA L. W. Sturbridge, June 28, 1929. *Mrs. R. B. Dodge.*

HYDROPHYLLUM CANADENSE L. W. Worcester, June 22, 1933. *Walter S. Young.* No herbarium sheet of this specimen reported by Mr. Young. The herbarium specimen is that of *Mr. N. P. Woodward*, collected in Worcester, July 11, 1933.

VERBENA HASTATA L., forma ROSEA Cheney. Worcester, Aug. 20, 1924. No herbarium sheet. See RH. 4: 245 for citation. *Norman P. Woodward.*

PRUNELLA VULGARIS L., var. LANCEOLATA (Barton) Fernald. W. Worcester, July 27, 1927. See RH. 15: 182 for citation. *Norman P. Woodward.*

MONARDA FISTULOSA L., var. RUBRA Gray. W. Worcester (Peat Meadow), July 18, 1921. *Norman P. Woodward.*

PHYSALIS PUBESCENS L. W. C. Worcester (Brattle St.) June 20, 1933. *Mrs. R. B. Dodge.*



EUPATORIUM COELESTINUM L. W. Worcester, Sept. 13, 1928. Escape into waste land. *Norman P. Woodward.*

LIATRIS SPICATA (L.) Willd. W. Worcester, Sept. 21, 1932. First specimen from New England in the Gray Herbarium. *Norman P. Woodward.*

BELLIS PERENNIS L. W. Worcester, May 17, 1933. Spont. in lawns. 4 records. *Norman P. Woodward.*

ASTER PILOSUS Willd. Holden, Sept. 10, 1930. Herbarium sheet in the U. S. Dept. Agri. checked by S. F. Blake. See RH. 32: 139 for citation. *Earl W. Bemis.*

ASTER AMETHYSTINUS Nutt., forma LEUCERYTHROS Bemis. G. Worcester, Oct. 5, 1924. *Earl W. Bemis.* A new form reported by Mr. Bemis in RH. 32: 3. Herbarium sheets are also at the Worc. Nat. Hist. Mus. (*Mrs. R. B. Dodge*) (Type in the Gray Herbarium).

ASTER AMETHYSTINUS Nutt., forma LEUCOS Bemis. G. Worcester, Sept. 24, 1930. *Earl W. Bemis.* A new form reported by Mr. Bemis in RH. 33: 63. (Type in the Gray Herbarium.)

ASTER LINARIIFOLIUS L., forma LEUCTACTIS Blake. Worcester, Sept. 25, 1926. No herbarium sheet. *Mrs. Frank E. Lowe.* A good stand, a part of which was transplanted to Mrs. Lowe's wild garden where always available. See RH. 34: 12 for citation.

RUDBECKIA HIRTA L., forma VIRIDIFLORA S. H. Burnham. Worcester. Noted in 1928, 1929 and August 22, 1931. No herbarium sheet. Spontaneous in Museum grounds. Several plants. *G. H. Pride.*

MADIA SATIVA Molina, var. CONGESTA T. & G. Worcester (Rice Square), Oct. 28, 1928. No herbarium sheet. *George H. Pride.* Also by *Mrs. R. B. Dodge* in Worcester, June 29, 1929. Herbarium sheet at the Nat. Hist. Soc.

CLARK UNIVERSITY,  
Worcester, Mass.

## NOTES FROM THE HERBARIUM OF THE UNIVERSITY OF WISCONSIN—XII.

### A STUDY OF STREPTOPUS<sup>1</sup>

NORMAN C. FASSETT

Plate 328

THIS study is based on the material in the Gray Herbarium, the United States National Herbarium, The New York Botanical Garden, the University of Minnesota, the Field Museum of Chicago, the University of Michigan, the University of Montreal, the University of Tennessee, the University of North Carolina, the National Museum of Canada, the Milwaukee Public Museum, the University of Wisconsin,

<sup>1</sup> Printed with aid to RHODORA from the National Academy of Sciences.